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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/669,899	09/27/2000	Makiko Endo	35.C14832	4427

5514 7590 10/31/2002

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EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 10/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/669,899

Applicant(s)

ENDO ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/26/02 has been entered.
2. Applicants' amendment filed 7/24/02, Paper No. 10, which was previously not entered, has now been entered. All outstanding rejections except for those described below are overcome by this amendment.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "the colorant" in line 2. There is insufficient antecedent basis for this limitation in the claim given that claim 1, on which claim 5 depends, does not disclose a colorant but rather has been amended to recite a dye.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 and 7-15 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 130789 taken in view of the evidence in Takashima et al. (U.S. 4,294,902).

EP 130789 discloses ink jet ink comprising colored polymer particle dispersed in aqueous medium wherein the colored polymer particle comprises film-forming polymer and dye and wherein the polymer is polymerized from monomers including acrylic monomer and then is dyed with dye. The film-forming polymer has minimum film-forming temperature not higher than 35⁰

C. There is also disclosed the use of a solubilizer or surfactant (page 3, lines 29, page 4, lines 4-11, page 5, lines 4-12 and 17-28, page 8, lines 10-22, page 11, lines 8-14 and 17-28, page 12, line 31-page 13, line 26, page 16, line 27, and page 24, lines 20-24).

While EP 130789 discloses that the ink is printed using ink jet printer and that the ink is ejected through nozzle onto substrate, there is no explicit disclosure that the ink is ejected through nozzle in correspondence with recording signal or that the printer comprises ink

cartridge or container for holding the ink. However, given that EP 130789 discloses ink jet printer, it is clear that these are inherent features of any ink jet printer. That is, an ink jet printer would inherently contain cartridge or container for ink and the ink would inherently be ejected in response to signal.

Further, although there is no disclosure that the dye is sublimated and penetrated to the film-forming polymer, given that the polymer is dyed by adding dye to polymer emulsion and then heating with agitation, it is clear that in using this process, the dye would inherently sublimate and penetrate into the polymer. As evidence to support this position, applicants' attention is drawn to Takashima et al. (col.10, lines 19 and 23) which disclose that dyes utilized by EP 130789 such as Basic Blue 5 and basic Yellow 2 are, in fact, subliming dyes. Thus, when such dyes are added to the polymer emulsion and then heated with agitation, it is clear that the dye would inherently sublimate and penetrate into the polymer.

In light of the above, it is clear that EP 130789 anticipates the present claims.

Response to Arguments

7. The above action is based on the amendment filed 7/24/02 which was previously not entered. In the advisory mailed 8/7/02, examiner stated that even if the amendment were to be entered, the rejections of record with respect to EP 130789 would not be overcome.

Given that this amendment has now been entered, examiner re-states applicants' arguments set forth in the amendment filed 7/24/02 with respect to EP 130789 as well as examiner's response to these arguments.

Further, it is noted that applicants' arguments with respect to EP 732381, Banning et al. (U.S. 5,700,851), and Hodge et al. (U.S. 5,895,988) have been fully considered but they are moot in view of the discontinuation of these references against the present claims.

With respect to EP 130789, applicants argue that the reference does not teach or suggest dye which is incorporated into polymer fine particles through sublimation.

However, page 11, line 24-page 12, line 2 of the present specification discloses that sublimation occurs by adding a dye to fine particulate resin dispersion and heating with agitation for a certain period of time. Similarly, example 26, for instance, of EP 130789 discloses making the colored polymer by adding dye to aqueous polymer emulsion and then stirring the mixture at 95 °C for 60 minutes. Further, as evidenced by state-of-the-art reference such as Takashima et al. (col.10, lines 19 and 23), the dyes utilized in EP 130789 such as Basic Blue 5 and Basic Yellow 2 are in fact subliming dyes.

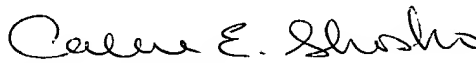
Thus, while there is no explicit disclosure of sublimation in EP 130789 given that EP 130789 disclose adding dye to polymer and heating with agitation for a certain period of time which is the same method utilized in the present invention to achieve sublimation and further given that dyes utilized in EP 130789 are in fact subliming dyes, it is the examiner's position, absent evidence to the contrary, that the dye in EP 130789 is in fact sublimated and penetrated into the polymer.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Callie E. Shosho
Examiner
Art Unit 1714

CS
October 30, 2002